DOCUMENT RESUME

ED 265 414 CE 043 462

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TITLE Knowledge Development and Utilization: Getting Employability Research into Public Use.
INSTITUTION Ohio State Univ., Columbus. National Center for Research in Vocational Education.
SPONS AGENCY National Inst. of Education (ED), Washington, DC.
PUB DATE 85
GRANT NIE-G-83-005-P-4
NOTE 55p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC03 Plus Postage.
DESCRIPTORS Career Education; Educational Media; *Educational Research; Educational Technology; *Employment Potential; *Inservice Teacher Education; Instructional Materials; *Material Development; *Research Utilization; Secondary Education; *Telecommunications; Vocational Education; Vocational Education Teachers; Workshops
IDENTIFIERS *Employability Development

ABSTRACT

The Knowledge Development and Utilization project was created to facilitate the public use of research by educators and trainers in the employability development field. The research to be disseminated emanated from the Youth Employability Research Program findings concerning employer demand and schooling effectiveness for employability. A user-driven approach to knowledge utilization involved potential users in activities ranging from giving advice to translating the research for other practitioners. Project staff collaborated with 21 national associations to develop brochures, articles, and workshops. Although project staff had to develop first drafts and sometimes complete final drafts, practitioners participated in design and review of all materials. Local education agencies and project staff developed two inservice booklets, three classroom products, and a job search videotape for students. All school-based products were extensively enhanced by ideas and activities suggested by the educator in the field trials. In cooperation with 50 state education agencies, project staff conducted two audioconferences, using telecommunications to disseminate research findings. (A synopsis of insights is intended as a guide to a user-driven approach to communicating research through existing channels in national associations, inservice and classroom materials, and telecommunication using videotapes and audioconferences. Descriptions of materials produced are appended.) (YLB)

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KNOWLEDGE DEVELOPMENT AND UTILIZATION:
Getting Employability Research into Public Use

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KNOWLEDGE DEVELOPMENT AND UTILIZATION:

GETTING EMPLOYABILITY RESEARCH INTO PUBLIC USE

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1985

FUNDING INFORMATION

Project Title:	Knowledge Development and Utilization
Grant Number:	NIE-G-83-005, P-4
Project Number:	716866
Act Under Which Funds Were Administered:	P.L. 96-88
Source of Contract:	National Institute of Education U.S. Department of Education Washington, D.C. 20202
Project Officer:	Ronald Bucknam
Contractor:	The National Center for Research in Vocational Education The Ohio State University Columbus, OH 43210-1090
Executive Director:	Robert E. Taylor
Disclaimer:	This publication was prepared pursuant to a grant with the National Institute of Education, U.S. Department of Education. Grantees undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official U.S. Department of Education position or policy.
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FOREWORD

The research program funded by the National Institute of Education and conducted by the National Center's Research Division produced a great deal of potentially useful knowledge on youth employability. To get this knowledge into public use, we created the Knowledge Development and Utilization project. The main purpose of this project was to communicate the research findings to practitioners and policymakers in the field of education and employment. The strategies were unique in that a special staff unit was created to work with potential users of the research knowledge to devise ways to utilize the research. Through collaboration, they produced a number of innovative products for practitioners and policymakers.

We wish to thank the National Institute of Education for sponsoring this project and Dr. Ronald Bucknam, Project Officer, for his interest in and support of this project. We want to express our gratitude to the many individuals and organizations who collaborated with us in this endeavor. We also wish to thank the reviewers of this monograph: Juliet Miller, Associate Director for Information Services, and Norm Singer, Senior Research Specialist.

Appreciation is expressed to Richard J. Miguel, Senior Research Specialist, for directing the project and for his work as senior author of this monograph; to Margaretha V. Izzo, Program Associate, for coordinating the development of articles and information briefs with national association; to Bettina A. Lankard, Program Associate, for coordinating the review and field test of the school-based products and for preparing the final versions of those products; to Diann Stefan and Tom Tinkler, student research assistants, for carrying out the many clerical and logistical tasks of the projects; to Michelle Naylor for editing the monograph; and to Jane Croy for her excellent secretarial services and dedication to the project.

Robert E. Taylor
Executive Director
The National Center for Research
in Vocational Education

EXECUTIVE SUMMARY

This monograph describes the activities of the Knowledge Development and Utilization (KDU) project, which was created to facilitate the public use of research by educators and trainers in the employability development field. The research to be disseminated by the KDU project emanated from the research program on youth employability conducted by the National Center's Research Division and sponsored by the National Institute of Education since 1981. The KDU project had three main objectives:

- o Communicate research findings on youth employability to practitioners and policymakers through existing knowledge utilization channels
- o Design a secondary school program to improve youth's employability
- o Provide widespread technological dissemination of youth employability research using videotape and audioconference media

The KDU project's activities were based on a user-driven methodology of knowledge utilization. This meant that potential users of the research findings were heavily involved in the translation of research into a variety of products and information pieces for practitioners. Everything produced in the KDU project was accomplished through collaborative efforts involving the potential users, the KDU staff, and the researchers who had generated the findings. In a few cases, practitioners took the lead in developing materials for other practitioners. For the most part, though, the KDU staff carried out the bulk of the development activities. In these situations, the practitioners "drove" the process during the design and review stages. Thus, the user-driven activities were represented along a continuum of involvement, ranging from practitioners accomplishing most of the KDU tasks to their guiding the product development activities of the project staff.

The KDU activities covered three areas: articles and information briefs developed with input from 21 national associations, school-based products developed through field trials in 7 local education agencies (LEAs), and the videotape and audioconference telecommunication of research findings. The national associations and project staff prepared articles, about short information brochures, and workshops to disseminate the findings. The LEAs and project staff developed two inservice booklets, three classroom products, and a job search videotape for students. All of these school-based products were extensively enhanced by the ideas and activities suggested by the educator in the field trials. The project staff, in cooperation with 50 state education agencies, conducted 2 audioconferences attended by 3,000 and 1,800 persons, respectively. These audioconferences enabled practitioners, researchers, and policymakers to interact with each other on critical education and employment issues related to the research findings.

The monograph concludes with a synopsis of insights gained by the KDU staff. The synopsis is intended to guide others interested in a user-driven approach to get research into public use.

INTRODUCTION

The research division of the National Center for Research in Vocational Education received a 5-year grant from the National Institute of Education, U.S. Department of Education, to conduct a research program on youth employability. To increase the utilization of the research findings, the National Center created the Knowledge Development and Utilization (KDU) project in 1983 as part of that grant.

This monograph provides a description of the KDU project, the knowledge utilization model that was used, the major activities of the project, and insights gained for improved utilization of research findings.

Overview of the Project

This section describes the purposes and objectives of the KDU project, the nature of the research to be disseminated, and the project staff.

Purpose and Objectives

At the inception of the project, the National Center's research division had completed several studies on youth employability had been completed and a number were still under way. The knowledge resulting from the research program was contained, as might be expected, in a series of technical research reports with accompanying executive summaries. The intent of the Knowledge Development and Utilization project was to facilitate the public use of these research findings by educators, trainers, and others in the employability development field (referred to hereafter as practitioners). Also, the project sought to provide policymakers with research information for input into educational policy formulation. Specifically, the project set out to accomplish the following:

- o Communicate research findings on youth employability to practitioners and policymakers through existing knowledge utilization channels
- o Design a secondary school program to improve youth's employability
- o Provide widespread technological dissemination of youth employability research using videotape and audioconference media

The project staff intended to achieve these objectives collaboratively, working as intermediaries between researchers and potential users of research findings.

Research Findings to Be Disseminated

The Youth Employability Research Program produced research findings in two major areas of inquiry: employer demand and schooling effectiveness for employability.

The Employer Demand project was an investigation of employer-provided training and employer hiring decisions. Using a representative sample of 3,000 employers, the researchers examined the characteristics of employers and trainees. This was done to determine the nature, determinants, and quality of the

training, especially as it was related to previous education and training and to subsequent economic outcomes. The Employer Hiring Decision study investigated the factors involved in the ways employers use the interview and job application processes to select new employees. A national sample of over 2,000 employers participated in various phases of this study.

The Schooling Effectiveness for Employability project examined a number of schooling variables in the High School and Beyond database, including a supplementary database (collected expressly for this project), which was drawn from 1,000 high schools in the original sample. The study included specific schooling process variables (e.g., guidance and counseling, classroom instruction, linkages to private sector, job placement service, and other schooling activities related to employability development) and examined their relationship to students' employability outcomes. Another study, Youth's Perceptions of Employer Hiring and Job Performance Standards, examined how youth's perceptions of employer standards were related to employment outcomes in the year following high school graduation. This study was conducted in four major cities located in the eastern, southern, midwestern, and central regions of the country. Over 1,200 students and 500 employers participated in this three-year study. A complementary research effort was the Field Study of Newly Hired Youth. The researchers followed 25 youth from 18-21 years of age in their employment pursuits for a one-year period to determine the nature of their experiences in job seeking, training, maintaining employment, and job leaving after they left high school.

Time and space do not permit detailed descriptions of these studies. However, each one is reported in a number of publications, which are listed at the end of this monograph. All are available from the ERIC Clearinghouse on Adult, Career, and Vocational Education. Summaries of the research are also available from the National Center's Public Information Office.

KDU Project Staff

Rather than placing the responsibility on each researcher to disseminate his or her own research findings, the National Center created the KDU project, staffing it with individuals who had been involved in the research and who had specialized skills in knowledge utilization. According to von Hippel (1978), this is a very successful strategy. He found that knowledge utilization goals are more likely to be accomplished when these functions are placed in the hands of a designated unit that is expressly responsible for accomplishing them.

The KDU staff consisted of a project director and two program associates. The project director brought two areas of expertise to the effort: he had served as a principal investigator of one of the major research studies on youth employability and he had considerable experience with practitioners and policymakers in a variety of research and development projects. Both program associates were skilled in the development of practitioner materials, in-service, and participation in interorganizational activities. In addition, one had worked in Washington, D.C. with the many national organizations located there, and the other had formerly worked in business and industry, holding a degree in business marketing.

Knowledge Development and Utilization Model

This chapter describes the theoretical base of the KDU project, the user-driven approach to knowledge utilization, and the nature of the collaborative activities used to achieve the KDU objectives.

Theoretical Base

A considerable amount of research has been amassed in the knowledge utilization field, enabling us to apply already-known principles for getting research findings into public use. Principal among the syntheses of this information is the work of Glaser, Abelson, and Garrison (1983), Putting Knowledge to Use: Facilitating the Diffusion of Knowledge and the Implementation of Planned Change. The tenets and guidelines reported in their synthesis, which served as the theoretical base for the Knowledge Development and Utilization (KDU) project, are summarized in this monograph.

The basic KDU model (see figure 1) is cyclical and incorporates what Servi (1976) refers to as a reiterative mode. Throughout the process from research design through knowledge utilization, researchers and practitioners sustain a high level of communication and collaboration to ensure that research results get into public use. This consisted of the following four major steps:

1. User knowledge-needs assessment
2. Research design, execution, and reporting
3. Differentiation and diffusion of research within the knowledge system for educational practice and policy
4. Translation of research findings
5. Use in the knowledge system

From the onset of the research program in 1981, the research staff worked very closely with other researchers, employers, practitioners, and policymakers who were knowledgeable about the problems of youth employability. These individuals were instrumental in the design of the research program and in the determination of the information needs of their respective groups. Further, these and other similar individuals were consulted regularly during the execution of the research itself. The use of influential and knowledgeable practitioners in all phases of research, development, and dissemination has been amply demonstrated to keep them better informed and to increase the use of research findings by other practitioners. Although these activities will not be discussed in detail in this monograph, it is important to point out that the early involvement of practitioners contributed greatly to subsequent success in the knowledge development and utilization cycle.

Knowledge system for educational practice and policy. Recognizing that knowledge should be structured according to the various needs of potential users and that their frame of reference serves as an important determinant of use, the KDU staff sought to map the territory in which they would be working. The knowledge system for educational practice and policy is vast, complex, and fragmented. It consists of a number of open and closed subsystems, that is,

information flows that would or would not be amenable to our attempts to have an impact on potential users of the research findings.

For example, there are many organizations that serve the information needs of educational practitioners. They provide a variety of information, most of which is not based on research. The primary thrust of that information is the sharing of information from one practitioner to another. For the most part, the majority of these organizations do set aside a section of their journals for research briefs. These channels of communication are relatively open to researchers to share their findings with practitioners, provided that there are strong ties to the practitioners' interests. The more common avenue for researchers to share their findings is through research journals in the education profession. Here, research is published according to whether or not it meets acceptable standards for research and research reporting. These journals, however, are rarely read by practitioners.

The more common way in which information flows in educational practice and policy is from one individual to another. Its credibility is heavily rooted in experience, prescriptions, "sharing ideas that work," and the ability to meet pressing priorities. Authentic research findings are seldom found in this subsystem.

Translation of research findings. One of the major reasons why research does not reach practitioners is the difficulty of applying the findings in a form that is readily useable by practitioners. Researchers and practitioners alike become naysayers in this process. The former insist that the findings cannot be liberally interpreted merely to meet some need in practice. The latter complain that the findings are either self-evident or that they are too narrow to serve any useful purpose. Neither is entirely accurate in their perceptions; consequently, considerable work needs to be carried out to translate the research findings into something that is both faithful to the research and useful in practice. The easier alternative is for the researchers to work in isolation from the potential users, writing implications and recommendations and preparing materials that practitioners can use. Although easier to do, these isolated efforts usually seem to have little or no effect.

The KDU Model and the User-driven Approach

Katter and Hull (1976) describe three different types of external agencies that provide new knowledge to schools: (1) collection-oriented agencies that provide knowledge utilization services to education merely as a part of maintaining and increasing their collections; (2) product-oriented agencies that want to disseminate a particular set or product line of educational information or knowledge; and (3) audience-oriented agencies that seek to meet the needs of clients. The KDU project's orientation was a combination of the latter two.

According to Roberts and Frohman (1978), the reiterative concept of knowledge utilization is greatly enhanced when user demand is driving the process. In that regard, we have characterized our KDU model (see figure 1) as "user driven." That is, members of the intended audiences play a major role in (1) selecting the research findings relevant to their information needs, (2) designing the products and processes by which the knowledge is to be used, (3) developing the products and information messages, and (4) playing a part in dissemination. Our basic operating assumption for the project was that a high

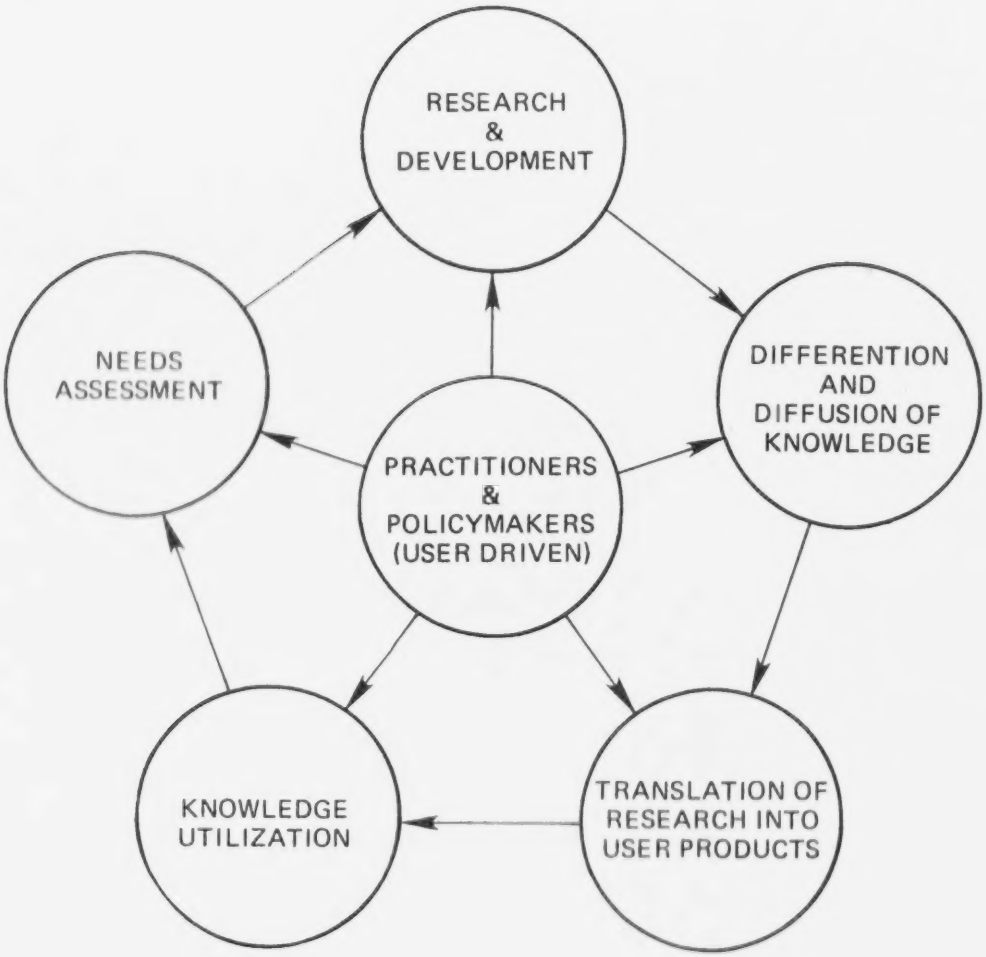


Figure 1. Knowledge Development and Utilization Model

level of practitioner investment and commitment in knowledge utilization would ensure high acceptability and utility of the research among practitioners and policymakers.

This strategy of providing for heavy and consequential involvement of potential users was designed to overcome barriers to effective knowledge utilization such as those pointed out by Sieber (1981). He indicates that approximately 50 percent of practitioners are seeking new ideas to implement in schools. However, Sieber reports that their typical strategy is to contact other practitioners, preferably in their own school systems. Materials from external sources, he asserts, are often irrelevant and complex, which renders them low in utility. Further, materials coming from "higher up" in the prooession, (i.e., from university research) convey a sense that practitioners are inferior, according to Sieber.

The user-driven method also afforded an opportunity to blur the lines between two sides of what Louis (1981) calls a major issue regarding knowledge utilization as practiced by research and development agencies. She indicates that the external agency providing the knowledge has to decide whether to operate with a "technological push" (i.e., persuade clients to use preselected "valid" research) or with a "demand pull" (respond to the clients' search for relevant findings). KDU staff devised a number of strategies that lay on a continuum between the two in order to increase opportunities for information flow between the researchers and practitioners.

In short, our user-driven approach was intended to increase the relevance, ease of use, and practicability of the research findings from our studies. Not only would the resulting products of the KDU project be better for having been designed by practitioners, but also other practitioners would be more likely to use the knowledge because "some of their own" had participated in the knowledge development and utilization processes.

Collaboration

The collaboration of researchers and practitioners appeared to provide the greatest potential for maximum utilization of research findings. If successful, collaboration optimally could result in research findings that would be not only immediately available and understandable to practitioners but also relevant to the realities of their particular situation. Pelc (1978) indicates that the formation of such partnerships between researchers and potential users of information reduces some of the institutional barriers that inhibit the use of research findings. Also, collaboration is appealing to practitioners because it helps to extend limited resources and reduce unnecessary duplication of effort (Hood and Cates 1983).

Therefore, KDU's major operational strategy to enhance the utilization of our research findings was that of collaborating with a number of key individuals and organizations in the field of education. These practitioners were not necessarily intended to be the ultimate users of the research; rather, they would serve, as Havelock (1969) suggests, as linkers with the target audience. Table 1 indicates the organizations that served as collaborators in achieving major objectives.

Characteristics of KDU collaborators. KDU staff entered into interorganizational arrangements with each of the organizations featured in table 1. The arrangements for the most part were informal, that is, no formal contracts or agreements were required. The emphasis was on accomplishing something worthwhile for all involved. There are four essential characteristics of the collaboration that we undertook (Hood and Cates 1983). First, agreement was between organizations although individuals carried out the collaborative activities. Second, communication regarding such matters as the purpose of the arrangement, level of investment, personnel, and activities to be conducted were formalized in person and confirmed in writing by letter. Third, the emphasis was on joint knowledge development and utilization, that is, full participation in all activities and decisions affecting the collaboration. Fourth, the activities built upon one another to form an enduring relationship, not merely one-shot attempts at dissemination.

TABLE 1
KNOWLEDGE DEVELOPMENT AND UTILIZATION COLLABORATORS

KDU Objectives	Targeted Collaborators
	National Associations*
Communicate research findings on youth employability to practitioners and policymakers through existing knowledge utilization channels	AACD AACJC AASA AFT AIAA AVA CCSSO DECA FBLA FFA FHA NAB NAIEC NASSP NASBE NASSP NCSL NEA NFIB OEA VICA
	Public School Systems
Design a secondary school program to improve youth's employability	Columbus, Ohio Oakland, California Portland, Oregon Boston, Massachusetts Hyannis, Massachusetts Tampa, Florida Denver, Colorado
Provide widespread technological dissemination of youth employability research using videotape and audioconference media	State Departments of Education

* See table 3--"Knowledge Utilization through National Associations" section.

The importance of communication and personal interaction. Communication was an essential mechanism for putting knowledge to use, inducing desired changes and spreading knowledge and innovation. Glaser and Taylor (1973) found that the successful research projects were characterized by a high level of communication with and involvement of potential users. They also noted that potential obstacles to knowledge utilization then become shared concerns. The

KDU staff, therefore, made special efforts to communicate with a wide group of potential supporters and users of the research.

The KDU staff was prepared to "sell" the research to the collaborators and to anticipate a certain amount of resistance. The experience of others indicated that we should create a climate of willingness for practitioners to participate in our knowledge utilization efforts. In many cases, such collaboration could mean taking time away from other duties, finding appropriate colleagues to assist in the effort, and in the case of schools, justifying the class time to try out materials. In short, while gaining access to potential users beyond those who helped design the research was an immediate concern, the first task was to convince the collaborators that the research findings and participation in the knowledge utilization activities were worthwhile.

A number of studies (e.g., Glaser and Taylor 1973; Rich 1979; Louis 1983) found that the one variable that could be manipulated to increase knowledge utilization was personal interaction with potential users of research findings. Therefore, the KDU staff invested heavily in personal contacts with its collaborators in order to provide the catalyst for information-seeking behavior and other forms of cooperation. Personal interaction was also considered very important to create trust in the research findings.

The Gatekeepers

Allen (1977) found that the role of the "gatekeeper" was crucial in achieving effective knowledge utilization. The KDU staff, therefore, concentrated considerable effort in identifying these individuals and in enlisting their support in achieving our KDU objectives. This approach, while crucial, was also found not to be the most common one used in the dissemination field (Price and Bass 1969). This was partly because it requires considerable effort and time to identify and cultivate these individuals who control the flow of information to organizational members and who can significantly affect the likelihood of durable knowledge utilization.

The reason that the staff pursued this path is that the gatekeepers assured "privileged" access to the ultimate target audiences. In order to obtain this access, the staff had to prove their professional competence in research and application to the associations' respective fields. This process involved demonstrating sensitivity to the gatekeepers' information needs. The following summarizes some of the characteristics of the groups with whom the KDU staff collaborated: researchers, practitioners, and policymakers.

Researchers. Although the researchers were members of the same organizational unit as the KDU staff, they functioned as a collaborating group in these knowledge utilization efforts. They had produced their research reports, which were the input into the KDU project. They even had made attempts to prepare information to be used by practitioners. However, they essentially viewed their role as researchers and viewed the KDU staff as their link to the world of practice.

In order to work effectively with the researchers, the KDU staff had to be ever mindful of the basic values and orientation that motivate researchers. Researchers' primary dissemination efforts are often driven by the reward structures within their respective professions or scholarly disciplines. In

this case, the research team was comprised of 3 economists, 2 sociologists, 1 educational anthropologist, and 1 educational researcher. Like other researchers, they were interested in knowledge for its own sake, the quality of research information supplied to the scientific community, and publication in scholarly journals.

Although these researchers were interested in improving practice as it relates to the social problems investigated in their studies, most did not possess the knowledge utilization skills or the time to provide practitioners with products or technical assistance that are highly useful.

Practitioners. Practitioners seem to be in a different world. They have a different set of values, problem norms, cognitive styles, rewards, and reference groups than do researchers seeking basic knowledge. Even their ways of communicating about the same phenomena differ. Joly (1967) reports that the communication differences between practitioners and researchers can often result in mutual distrust and lack of communication. This poses a significant problem for knowledge utilization. Failing to give sufficient attention to these differences in value orientations is likely to cause the practitioner to reject the researcher's information.

Thus, a "vicious circle" exists in the fields of educational research and practice. Many practitioners do not think that research has significant relevance to their work. This perception creates an atmosphere in which low priority is given to research and research utilization efforts. A credibility gap is created and it is manifested in the researcher's reports. Not only do most practitioners find research reports unreadable, but they take offense at the fact that researchers seem to be unaware of what has already been accomplished in practice. Improving on these two shortcomings of research reports may increase the impact of research on practice; however, for the most part, practitioners are "doers" rather than readers. They tend to rely on oral communication, namely, demonstration, training, word of mouth, and nonprint media.

Glaser and his associates (1983) summarized the differences between practitioners and researcher that could inhibit the flow of information between them. Table 2 graphically illustrates the polarity in these two groups.

TABLE 2
DIFFERENCES BETWEEN RESEARCHERS AND PRACTITIONERS

Researcher	Practitioner
o Seeks rigor	o Must be realistic
o Logical	o Intuitive
o Statistical skills	o Clinical skills
o Looks for patterns in a population	o Views each cash as unique
o Lives with the hypothetical	o Wants to act with confidence
o Asks the question "why"	o Wants to know "how"
o Criterion orientation	o Process orientation
o Analysis	o Prescriptions
o Knowing and understanding	o Doing and implementing
o Relies on canons of science	o Relies on precedent, common sense, intuition
o Interprets data within scientific constraints	o Interprets data beyond their scientific limits to fit broader needs of practice
o Views applications of research as vulgar popularizations	o Views research as addressing trivial problems

SOURCE: Excerpts from Glaser, Abelson, and Garrison (1983): 369-370.

The KDU staff, having previously worked in both arenas, tended to view these rather cynical observations cautiously. In fact, Bowman (1978) found much overlap in researchers and practitioners' attitudes toward knowledge utilization, thereby revealing a number of common interests. The KDU staff intended to capitalize on these common interests and on their common goal of improving the employability of youth.

Policymakers. Glaser, Abelson, and Garrison's (1983) review of the literature tends to rebut the widespread belief that social science research has had little effect on policymaking. However, they point out that research findings from individual studies are usually not consulted in policymaking. Instead, legislators typically consult with colleagues and respond to popular pressures and political considerations.

Policies are influenced over a period of time, however, by an accumulation of research findings, which provides a more stable foundation for decision making. Weiss (1980) has described this phenomenon as knowledge creeping into policymaking. Therefore, no attempts were planned to recommend policy. Rather, the KDU staff's approach to knowledge utilization with policymakers can best be characterized as one of providing research information that "could be" used in educational policy formulation.

Summary

This section described the KDU project's objectives: 1) to communicate research findings on youth employability to practitioners and policymakers through existing channels; to design a secondary school program to improve

youth's employability; and to provide widespread technological dissemination of the research findings. To accomplish these objectives, the project staff developed an cyclical knowledge development and utilization model which involved the collaboration of researchers and potential users of research in steps ranging from research design to development of materials for the users. The approach was user-driven, that is, the KDU staff involved possible potential users in a variety of activities ranging on a continuum from giving advice (the minimal) to translating the research for other practitioners (the ideal). This section also described gatekeepers in the field of education's knowledge system and how the KDU staff planned to work with and through practitioners to achieve project goals.

The following 3 sections describe the knowledge development and utilization activities the staff conducted with national associations, with schools, and through telecommunications. Each section describes how the project staff collaborated to achieve its objectives and the resulting products. The final chapter of this monograph summarizes the "lessons learned" from these collaborative efforts to get employability research into public use.

KNOWLEDGE UTILIZATION THROUGH NATIONAL ASSOCIATIONS

Overview

The KDU project tapped the network of national associations, organizations, and other groups interested in youth employability. This network was utilized to disseminate the research findings directly to national associations' members who could apply the research finding in their day-to-day work activities. Through these means the project staff planned to affect the policies and programs of school administrators, teachers, guidance counselors and other practitioners.

The specific knowledge utilization strategy used was to establish channels for ongoing reporting of research through a highly personalized approach to working with each association. Project staff encouraged the associations to disseminate the research findings by involving their members in the knowledge utilization process so as to produce written communication that was tailored to their professional concerns and activities. Through articles sponsored and highlighted by the associations in their newsletters and journals, they not only gained an awareness of the research findings but also increased the likelihood of affecting teaching and counseling practices.

Before project staff actively began working with associations, they reviewed and summarized the research reports, highlighting information relevant to practitioners and policymakers. They prepared project profiles which were one-page descriptions of the projects. They grouped the findings according to potential use. Throughout this process, they consulted the researchers.

Identifying Associations

Project staff gathered background information on 40 associations in order to identify those with the highest probability of working successfully with the KDU project. Project staff examined their publications, got information on their institutional capacity and activities, identified key personnel, and interviewed National Center staff and others who have worked with the associations. Then they prepared profiles of prospective associations.

Next, project staff constructed a matrix of the potential organizations, which were arranged according to our ultimate target groups (e.g., administrators, teachers, and policymakers) and organizational background information. An assessment of this matrix yielded 21 associations on which to target our knowledge utilization activities (see table 3). The project staff used 4 criteria: compatibility of research findings with association's mission, potential for impact, track record for working with researchers, receptivity to initial inquiries, and potential for impact.

Before contacting these associations, project staff prepared a plan of approach for each one. This included identifying the gatekeepers, by contacting others who had worked with the associations, timing the contact, developing the rationale to be used to convince the association that KDU had useful information to be disseminated, and preparing reasons why their organization was instrumental in this process and an explanation of how their members would benefit from the information.

TABLE 3
ASSOCIATIONS TARGETED FOR KDU ACTIVITIES

Association	Acronym	Target Population	Number of Members
American Association of Community and Junior Colleges	AACJC	Community and Junior College Personnel	1,219
American Association of Counseling and Development	AACD	Counselors	40,000
American Association of School Administrators	AASA	Administrators	18,000
American Federation of Teachers	AFT	Teachers	610,000
American Industrial Arts Association	AIAA	Industrial Arts Teachers	8,700
American Vocational Association	AVA	Vocational Educators	55,000
Council of Chief State School Officers	CCSSO	Chief State School Officers	57
Distributive Education Clubs of America	DECA	Teachers and Students	76,000
Future Business Leaders of America, Phi Beta Lambda	FBLA	Students	220,000
Future Farmers of America	FFA	Students	468,953
Future Homemakers of America	FHA	Students	350,000
Interstate Distributive Education Curriculum Consortium	IDECC	Teacher Educators and Teachers	7,700
National Alliance of Business	NAB	Business Persons	54,000

TABLE 3 (continued)
ASSOCIATIONS TARGETED FOR KDU ACTIVITIES

Association	Acronym	Target Population	Number of Members
National Association of Industry-Education Cooperation	NAIEC	Business Persons and Educators	1,180
National Association of Industrial and Technical Teacher Educators	NAITTE	Teacher Educators	850
National Association of Secondary School Principals	NASSP	Administrators	36,000
National Association of State Boards of Education	NASBE	State Boards of Education	76
National Conference of State Legislatures	NCSL	State Legislators	850
National Education Association	NEA	Teachers	1,600,800
National Federation of Independent Business	NFIB	Small Business	560,000
Office Education Association	OEA	Teachers and Students	76,000
Vocational Industrial Clubs of America	VICA	Students	224,698

Contacting the Associations

The project staff contacted each association by telephone and arranged for a meeting. They sent letters of confirmation, including a description of the KDU ojectives, the purpose of the meeting, and what KDU intended to accomplish through collaboration.

In almost every situation, the contact person had assembled key decision makers, personnel responsible for the association's communication with members, and persons who would judge the merits of the research. It is interesting to note that many of the associations do have staff members who are knowledgeable about research. These individuals proved, in several cases, to be the most influential of the gatekeepers. They were in a position to judge the quality of the research and to decide whether or not their organizations would be associated with the effort.

The project staff was required and prepared to give concise presentations of the research and to field questions from the association representatives. It was clear that little would be accomplished if KDU could not convince them of three things: 1) the research knowledge to be transmitted was of high quality, 2) their participation was worthwhile, and 3) project staff would follow through on activities agreed upon. A few associations became stalled at this stage for several months because the project staff could not get the association staff to follow through on agreed upon activities. Invariably this resulted in minimal or no utilization of the research. For the most part, though, project staff was able to enter into collaborative agreements with the associations. These were confirmed in writing after the site visit.

Another important step was to convince the association representatives to participate in the user-driven strategy. Although this was intuitively appealing, it called for a greater commitment than most associations were prepared for or were willing to give. Although most associations reviewed the research, not one was willing to commit time to translate the research into printed materials for their members. What they requested was that project staff prepare the information, using the association's suggestions for content selection and format. They were willing to review and edit draft materials, and this proved to be both effective and efficient. The project staff was able to work with the researchers to get further clarification, make the translations, and still maintain fidelity to the research while meeting the users' needs. Hence, the research was translated for practitioners without distortion and misapplications. This step became the most time consuming of all, but it also contributed the most to the enterprise.

How Associations Used the Research

The associations used four basic strategies to convey the research findings to their members. The practitioner-oriented associations preferred 1) tailor-made information brochures which they distributed through selected mailings, newsletter enclosures, and conferences; 2) articles published in their journals and magazines; and 3) workshops which KDU staff and association leaders designed to share the findings and to interact with key members. The policy-oriented associations preferred to disseminate Facts & Findings, which are summaries of the research prepared by National Center staff. They indicated that it would be inappropriate for them to suggest policy to their members. An alternative user-driven strategy was devised to disseminate the research to state legislators. Each of these strategies is discussed in turn.

Brochures

After receiving project profiles and Facts & Findings about the research effort of the National Center's Research Division, Dr. Joseph Scherer, Associate Executive Director of the American Association of School Administrators (AASA), sent the information to 15 experienced school superintendents. Dr. Scherer asked these superintendents to review the material for content relevance as well as for how the information should be disseminated to school administrators. Several of the superintendents recommended that the information on education and employment was, indeed, of interest to administrators, and that a brochure format would be most suitable. Thus, the "Research You Can Use" brochure format was created (see appendix A).

Each brochure was drafted by KDU and then reviewed by AASA staff. After revisions were made, each brochure was printed and disseminated with the logos of AASA and the National Center. The National Center covered the printing costs of the brochures and AASA covered the distribution costs.

AASA disseminated the brochure at its annual legislative conference, which attracts superintendents from across the country. AASA also disseminated the brochures through AASA's Information Exchange Network--a monthly newsletter that highlights current issues, practices, and policies, and that is mailed to 1,500 superintendents across the country.

These brochures proved to be so successful that they were marketed with other national associations. Again, the National Center agreed to have the brochures printed with the association's logo on the brochure cover, and the association covered the distribution costs. These associations and the number of brochures each received are listed in table 4.

TABLE 4
ASSOCIATION-BASED DISSEMINATION EFFORT

Association	Number of Brochures	Association	Number of Brochures
American Association of School Administrators	2,000	National Association of State Boards of Education	730
Distributive Education Clubs of America	700	National Research Coordinating Units Association	300
Georgia Marketing & Distributive Education State Association	500	Office Education Association	300
National Alliance of Business	1,200	Oregon Department of Education	300

Including the brochures mentioned in table 4, the total disseminated was 8,550. This figure includes single mailings and other association dissemination efforts that were not personalized with their own logo. These associations included: the American Federation of Teachers, American Vocational Association, and the Interstate Distributive Education Curriculum Consortium. These three associations combined disseminated nearly 1,500 brochures.

TABLE 5
BROCHURES AND TOPICS

Brochure	Topic
Research You Can Use:	How Vocational Education Affects Labor Market Success
Research You Can Use:	The School's Role in Preparing Youth for Employment
Research You Can Use:	How Employers Make Hiring Decisions
Research You Can Use:	The Adolescent Worker--Facts or Myths?
Research You Can Use:	Part-Time Work Experiences of High School Students
Research You Can Use:	Youth's Perceptions of Employers Standards
Research You Can Use for Education Policy:	Preparing Youth for Employment

Included with each brochure was a reaction card. Recipients of the brochures commented on various aspects of the research information; for example, they estimated the number of individuals with whom they intended to share the research findings. The results of this inquiry are summarized in table 6.

TABLE 6
NUMBER OF CONSTITUENTS REACHED

Constituents	Number Reached	Constituents	Number Reached
Students	124,094	Superintendents	743
Teachers	31,137	Community Members	8,799
Administrators	7,435	Others (Advisory Boards, Counselors, Volunteers)	387

According to the reaction cards, which reflected a response rate of 6.15%, it was learned that over 170,000 individuals would receive the information presented in the brochures. As one can see, the dissemination efforts have been quite successful in reaching a large number of constituents. In fact, in one case alone, Mr. Lawrence T. Cooper, president of The Management Council is Los Angeles, California, shared the research findings with nearly 90,000 students! This feat was accomplished by distributing the brochures to 1,000 teachers who shared the information with their classes and to 3,000 volunteers who entered ninth grade classrooms and cited the research in the context of lectures on adolescent employability. Some of the comments on the reaction card can be found in table 7.

TABLE 7

TESTIMONIALS FROM USERS ABOUT THE
RESEARCH YOU CAN USE BROCHURES

"Right on target for career ed coordinator."
Pat Foor, Ohio
"Excellent material--Very appropriate for
work experience programs."
Ted Cook, California
"Thanks--We are fighting adverse legislation in our state
and need this information terribly!"
Susan Arnold, Georgia
"So much research information is not written on a
level that students can interpret--this is."
Ms. Maurita Miller, Missouri
"Very useable information for both
educators and lay people."
Darwin W. Smith, Colorado
"Very clear, easy to follow, and helpful."
Lynn A. Wright, Mississippi

Articles

It was difficult to generate user-driven articles for a variety of reasons. First, the practitioners did not have time to develop articles. For example, one practitioner has been working on an article for publication in The Technology Teacher since April 1984. Second, the users had difficulty interpreting our reports which are written on a technical level. Therefore, many practitioners were overwhelmed by the statistical analyses presented within the reports. Only after the project staff generated several articles and provided them to practitioners, did they finally begin to develop their own articles. For a complete listing of all the articles generated through the efforts for the KDU project by association, see table 8.

TABLE 8
ARTICLES: PUBLICATION INFORMATION

Association	Publication	Article	Date
Future Homemakers of America	Teen Times	Teens Working: Rewards & Pitfalls	12/84
Future Business Leaders of America--Phi Beta Lambada	Tomorrow's Business Leader	How Employers Make Hiring Decisions	1/85
American Vocational Association	Voc Ed	Voc Ed Spells Job Success	1/85
Office Education Association	OEA Communique	Fitting into the Job	5/85
National Association of Secondary School Principals	Student Activities	How to Become an Insider	9/85
Vocational Industrial Clubs of America	Professional News An Advisor's Guide	VICA: Bridging the Gap Between School & Employment	9/85
National Association of Secondary School Principals	Student Activities	When You Are in Training	10/85
Office Education Association	OEA Communique	Office Education: What's in It for You	10/85
Intrastate Distributive Education Curriculum Consortium	IDECC Ideas	Employability Programs Needed	Fall 1985
National Association of Secondary Schools Principals	Student Activities	Trouble on the Job	11/85
FORTHCOMING			
Office Education Association	OEA Communique	How to Avoid the "Firing Line?"	3/86
Office Education Association	OEA Communique	Making a Graceful Exit	5/86

Several articles featuring the research findings will be published in 1986. Don Clark, president of the National Association for Industry-Education Cooperation (NAIEC) accepted an article for the Journal of Industry-Education Cooperation. Dr. Clark asked for an article that summarizes the videotape

"Education and Employment: Where We Are and Where We Ought To Go." Douglas Hunt, Associate Executive Director of the National Association of Secondary School Principals (NASSP) accepted an article for publication in the News Leader, a newspaper published by NASSP. The Journal of Industrial Teacher Education will publish a special issue reporting the research findings in four articles.

Workshops

Several associations preferred to have the research findings presented to a group of key members and advisors. For example, Edward Davis, Executive Director of Distributive Education Clubs of America (DECA) requested to have a KDU staff member present two speeches at the opening session of DECA's annual national advisory board and state advisors meeting. Dr. Davis outlined the thrust of the speeches and shared expenses to bring the National Center staff to the conference. This cooperative effort, as well as two others, can be found in table 9.

TABLE 9
KDU WORKSHOPS FOR PRACTITIONERS

Workshop	Speeches	Audience
Challenge to Excellence: Joint Conference of the National Advisory Board	o What Business Expects from Education o What Education Expects from Business	120 National Advisory Board members and state advisors
The 1984 National Marketing and Distributive Education Curriculum Conference-"Maintaining Excellence in a Period of Transition."	o Youth Perceptions of Employers Standards o The Social Payoff of Occupationally Specific Training o How Employers Make Hiring Decisions	MDE Teacher Educators and Teachers
Counselor Education Career Development Workshop Series	Education and Employment: Where We Are and Where We Ought To Go--Intro, Tape and Discussion The Process of Becoming A Worker-Implications for Counselor Educators	32 University Professors

Policy information. With the exception of the National Conference of State Legislature (NCSL), efforts were less than successful with policy-oriented associations. As noted earlier, NCSL did disseminate the National Center's research summaries, suggesting that the information might be of use to

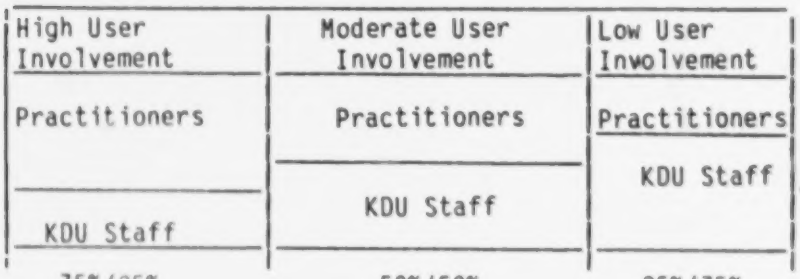
their members. Otherwise, the principle of "knowledge creep" (Weiss 1980) was in effect. That is, the research did not seem to have any immediate use in policy, but could eventually find its way into use when the need arose.

As an alternative, the KDU staff worked with an individual state legislator to summarize the findings that might be of interest to fellow legislators. Once prepared, this brochure entitled "Research You Can Use in Education Policy" was sent directly to 2,000 state legislators by the National Center. The state legislator working with KDU stressed the importance of clear, brief, and factual information and explained where legislators could find out more about the research if they were interested. Since this was one of the last activities of the KDU project, we have no data on the effectiveness of this strategy.

Summary

The KDU staff collaborated with 21 national associations to develop information brochures, articles, and workshops. The original approach to knowledge development was to have practitioners develop the written materials. This proved to be infeasible. Instead, project staff had to develop the first drafts and in some cases had to complete the final drafts. The user-driven approach was maintained, however, because practitioners did participate in the design and review of all materials. Hence, the user-driven strategies used with associations represented points along the continuum shown in figure 2.

FIGURE 2
USER-DRIVEN DEVELOPMENT CONTINUUM



KNOWLEDGE UTILIZATION IN SCHOOLS

Overview

The objective of this KDU component was to develop a multi-media package of employability development materials to be implemented in secondary schools. In the original design, the package was to include the following:

- o Administrator's guide to the expectations employers hold for schools
- o Educator's guide to school effectiveness for employability
- o Guide for businesses collaborating with schools on how to select and train the young worker
- o Classroom resource for assessing youth's perceptions of employer hiring and job performance standards
- o Videotaped simulations that demonstrate successful and unsuccessful job search behavior
- o Booklets to inform students about the opportunities and pitfalls of early work experience after high school

Researchers had prepared drafts of these products in an initial attempt to translate their findings into materials for practice. The KDU staff then worked with a number of school administrators, counselors, and teachers to convert these researcher-developed materials into inservice and instructional materials that would have a high likelihood of being adopted in secondary schools. Of all the KDU activities, the development of the multi-media package required the greatest interaction and collaboration with practitioners and was the most labor intensive for the project staff.

Collaboration with Practitioners

The KDU staff instituted a two-tiered collaborative process to accomplish the knowledge development and utilization activities of this component. First, they conducted an extensive review of the products with a panel of nine practitioners in the Columbus, Ohio, metropolitan area. This panel consisted of administrators, counselors, teachers, and employers. Each had been extensively involved with programs aimed at increasing the employability of students in their schools. The panel was representative of potential consumers of the multi-media instructional materials. The second tier of collaboration involved field trials of the materials in seven school districts around the country. Each of the school districts was actively involved in a variety of employability development programs and, again, represented potential adopters of the materials. The following section describes the activities of these two KDU efforts.

Practitioner Review Panel

The practitioners met with the KDU staff to review the aims of the KDU project and objectives of the panel review. Each received all 6 of the

products with instructions and forms for completing the review. After the reviews were completed, the panel reconvened with the KDU staff to discuss the strengths and weaknesses of each product and to make suggestions for revision prior to the field trials.

In the opinion of this panel, only the student materials were reasonably close to an acceptable standard for field implementation. The panel's annotations on review copies and its comments made at the meeting provided excellent guidance for revising these materials. The inservice materials for administrators, teachers, and employers were not acceptable as written. For the most part, the panel thought they were condescending and provided little in the way of new information. Also, they thought they were unnecessarily wordy.

The panel's overall assessment of the materials was that, although they did not provide a great deal of new information on youth employability, they were unique in that they gave new insights into employers' priorities and they made good use of the research data. For example, one panelist expressed the consensus of the group in saying that she "had been telling students these things all along, but having the data to back them up would increase the effectiveness of the learning."

Field Trials

The KDU staff solicited recommendations for potential field trial sites from the National Center staff and the staffs of other NIE Laboratories and Centers. The staff invited 15 school systems to participate in the field test of the materials. Seven accepted the invitation and entered into the collaborative process with the KDU staff. Representatives of the following public school systems participated in the field trials:

- o Barnstable County, Massachusetts
- o Boston, Massachusetts
- o Columbus, Ohio
- o Denver, Colorado
- o Hillsborough County (Tampa), Florida
- o Oakland, California
- o Portland, Oregon

Prior to the field trials, the KDU staff provided orientation sessions at each site. They explained the purposes of the materials and the field trials and gave instructions on how to provide evaluative feedback for KDU. During the field trials, each product was implemented in the manner in which it would ultimately be used (i.e., teachers and students used the classroom materials, and employers and administrators reviewed the materials designed for them).

To the extent possible, KDU staff observed the implementation of the materials, recording notes on their observations. When the field test was completed at each site, a KDU staff member conducted a debriefing session to discuss the results of the implementation with the practitioners. The bottom-line questions for these sessions were: Would you use these materials in your schools again? Would you recommend that your school system purchase these materials? What would have to be done to the materials to get an affirmative response to the former questions?

Final Preparation of Materials

The information from the field trial sessions, annotated copies of the materials, and practitioners' written evaluations were synthesized. From these syntheses, KDU staff developed specifications for the final revision of the materials. All of the materials required substantial revisions to improve their acceptability to the collaborating practitioners. As in the panel review, the classroom materials were better received than were the inservice materials for administrators, educators, and employers.

The classroom materials received little criticism on their substance. The practitioners thought the research information in them was very informative and useful. Their major criticism was directed at the format and ease of use of the materials. The three information booklets for use in inservice and gaining community support for the program were deemed unacceptable in their field-trial form. The practitioners recommended that the KDU staff prepare one booklet to introduce the basic concepts and purpose of the program and to delineate the roles of various individuals. They indicated that the most effective way to introduce for this type of program would be to gather together educators, employers, parents, and others interested in youth employability and to use an introductory booklet to gain their support. The practitioners also recommended that the multi-media package include a monograph that provided considerably more background ("more beef" in their words) on the research--not a research report but something written in plain English.

The KDU staff made the final revisions to the materials and produced the multi-media package which contained the following products:

The Employer's Choice

Orientation and Inservice Materials

Your Role in Youth Employment
(Introductory Booklet)

In-School Preparation for Employment
(Background on Research)

Classroom Materials

What Are Employers' Priorities?
Student Booklet and Instructor's Guide

What Works in the Job Search?
(Instructor's Guide and Videotape)

What Works On The Job?

Getting A Job
Becoming An Insider
Learning At The Worksite
Leaving A Job
(4 Booklets and Instructor's Guide)

The multi-media package of school-based products is available from the National Center's Marketing division. Descriptions of these products can be found in appendix B.

Summary

The research staff developed 6 products for use in school systems. Three were for inservice and the introduction of the research findings to administrators, teachers and counselors, and employers. The other three were for classroom use. A panel of practitioners reviewed these materials, providing revision suggestions to the KDU staff. After revising the materials, the KDU staff conducted field trials of the materials in 7 school systems. The inservice material had to be substantially revised. The practitioners recommended that the project staff prepare a concise introductory booklet to introduce the concepts and components of the classroom products and a monograph to provide background information on the research. The classroom materials were well received. The practitioners recommended ways to make them more attractive and easier to use. They also suggested many activities and supplementary activities. These products have been completely revised and are now ready for widespread dissemination.

KNOWLEDGE UTILIZATION THROUGH TELECOMMUNICATION TECHNOLOGY

Overview

The KDU staff was also responsible for conducting the Policy Forums, a series of conferences held annually to discuss issues related to youth employability. The three forums prior to the KDU project used traditional conference methods. That is, each forum addressed a particular issue in the education and employment field, presenters were selected, papers were prepared and delivered at a convening of interested participants, and a conference report including the papers was prepared and disseminated.

The KDU staff assessed the dissemination process and effects of the first three forums. They determined that, although the forums were reaching other researchers and policymakers, they were not effective in reaching the considerably larger audience of practitioners. First, only about 100 persons on the average attended each of the previous forums. Practitioners probably did not attend because few of them had the travel funds. More important, many of the presentation topics would be regarded as too "researchy" or esoteric to be of any immediate use to practitioners. This indeed was the case, since the forum programs were intended to be scholarly and aimed at a research and policy audience. Second, while the resulting publications of each forum reached approximately another 500 people, few practitioners were among these numbers. Again, these conference reports were not intended to address practitioner concerns. The questions addressed were more of a "why" nature than "how."

The KDU staff decided to design the next two forums for a much broader audience--primarily educational practitioners. Since it was obvious that it would be difficult and costly to attract a large audience to a traditional conference, the staff began to explore various means of telecommunication. Two-way interactive video telecommunication seemed ideal until staff discovered that costs were prohibitively high.

In exploring other options for Forum 4, the KDU staff decided to develop a videotape to summarize the findings of the research program and show it at various locations around the country. Staff collaborated with state departments of education in all 50 states. After viewing the videotape, forum participants in all but 5 states interacted with the researchers and each other via an audioconference. Five states used the videotape only. This conference method enabled over 3,000 persons in 50 states, Washington, D.C., and even 1 site in Canada to be forum participants. Had all these persons attended the conference at one site, the costs would have exceeded $1.2 million. They got just as much, if not more, through the teleconference at a fraction of that cost.

The first teleconference was so successful that audio-conferencing was again used for Forum 5. No videotape was developed for this event due to a reduced budget. More important, the Forum 4 participants indicated that sharing information via audioconferencing was the aspect of the conference they liked the most. Over 1,800 individuals participated in Forum 5.

The following sections describe procedures using telecommunication technology to communicate research.

Teleconferencing

Teleconferencing is a generic term for several different types of electronic meetings in which the spoken word, visual images, or typewritten messages are exchanged electronically by groups of persons who are at a distance from one another (Van Eekhout 1985). Teleconferencing serves as a viable, cost-effective alternative to the standard face-to-face method of communicating research. Deciding whether to use teleconferencing and which form to use is not an easy task. Many factors need to be considered in selecting the proper teleconferencing mode and in implementing a successful event.

The first steps in planning any conference is to identify the program topic, determine the audience, and decide upon the needs and outcomes of the program. Once these questions were answered, the staff was ready to select the teleconferencing mode. Four general types of teleconferencing may be used as an alternative to face-to-face communication: audio, audiographic, computer, and video. Staff took into consideration the purpose of the meeting, the availability of equipment, budgetary constraints, cost savings, the learning approach, meeting location, and program format (discussion, brainstorming, questions and answers, instruction, problem solving, information dissemination) in order to select the most appropriate method for communicating the research. The content to be communicated during the conference was another factor in determining the best conference mode.

Once the proper mode of communication was selected, the staff chose an audioconference. A vendor was selected whose main purpose was to link several locations into the conference via a central "bridge" and to correct technical problems that occurred during the activity. This system allowed the conference participants from around the country to interact with one another.

There are three major types of audioconference services that a vendor may provide. They are user-initiated, operator dial-out, and meet-me. The user-initiated conference call is the most basic form of audioconferencing. Communication begins in your office either through a telephone handset (by contacting your local Bell telephone operator) or a PBX system. AT&T also offers a system known as "Alliance," which can be used simply by having a touch-tone telephone. Operator dial-out involves an operator who calls each location prior to the meeting and links it into the system. Meet-me audioconferencing, used for the KDU event, allowed each of the locations to dial into the central bridge at a predetermined time before the conference.

Equipment selection was also an important consideration. Each location needed conference equipment to accommodate the people at the site. A regular telephone handset may be used by one person, but extensions can not be used by additional parties because of possible line deterioration. Some sites had conference equipment, but most rented it from a conference vendor or from a telephone store. Proper conference equipment can accommodate anywhere from 3 to 300 participants, which was the range of audiences at our audio-conferences.

Once the conference mode and vendor had been selected, the staff continued the process of developing the content of the program and prepared printed and visual supplements.

Videotapes

Preparing 1-hour videotape production is a monumental task and requires 6-12 months planning time. Planning and production schedules had to be made early and strictly adhered to during the videotape development. Any and all disagreements had to be discussed early and openly. Once approvals had been given, production began.

One of the first steps followed in producing the videotape was to develop program objectives and an outline. A treatment sheet described exactly what objectives would be met, what the project would cost both in terms of time and money, and how the project would be accomplished creatively and technically, as well as some information on possible bidders who would be responsible for producing the project. The treatment sheet was reviewed and approved by the project director as well as other decision makers who had the final authority concerning the program design and research content. This process turned out to be a very critical and time-consuming task. The following steps were followed in transforming the research into the videotape medium:

1. Selected a group of people who could work as a team using their writing, technical, and organizational skills to develop a quality videotape production.

2. Established specific objectives, realistic time lines, and budget for our videotape production. The "treatment sheet" helped us focus the presentation and meet budgetary restrictions.

3. Selected a production firm with experience in creating videotape productions for a wide array of organizations. Make sure the selected production firm was committed to a firm budget.

4. Developed a script that outlined both the video and audio descriptions of the actual program. The script allowed us to look at the program in its entirety before it was actually produced. Thus, the script helped us foresee problems and correct them before videotaping began.

5. Hired "talent." Professional talent, especially the narrator, is a good investment. Although the base rate for a professional may be expensive, both time and money can be saved in terms of quality of product and reshooting.

6. Developed a schedule for video shooting. Determine ahead of time precisely where and when you will videotape the talent. Frustration can be avoided when all rooms have been scheduled and checked for lighting and sound quality; talent has scheduled their time around your needs for the shooting; all props and furniture are available in the rooms, and the production company has had a chance to scout the location for access (i.e., some "private" locations may require permission for taping, such as stores in the shopping centers).

7. Practiced shoots to familiarize talent with the camera and the crew.

8. Adhered to guidelines established at the beginning of the production. Script changes should be made before shooting is completed and definitely before editing commences.

9. Shot the program, minimizing the use of "talking heads" where a camera focuses on nothing but a speaker talking for a lengthy period of time.

10. Produced a rough edit that provided an opportunity for the decision makers to sit down and discuss any concern before the final tape was completed.

11. Reshot additional footage. Always be prepared for this step. Someone or something will guarantee the need for it.

12. Completed the final edit. Any changes made after this point are very costly because, unlike film, a videotape must be reconstructured from the point at which the first re-edit occurs!

Despite how mundane any of these steps may seem, each is a part of a creative process and a political process. They need to be well planned, carefully managed, and executed with the skills of both an artist and a diplomat.

Audioconferences

Audioconferencing is often used to communicate research information among groups of people who would otherwise be unable to meet to share ideas and resources about the topic. This is a cost-effective alternative to the traditional face-to-face method that often requires a great deal of time and expense for travel, meals, lodging, facility rental, compensation of the expert/trainer, and lost time away from the office.

The emphasis of Forum 5 was upon building a rapport between participants involved in the conference that would serve to overcome the barriers of distance and the lack of face-to-face contact often experienced during an audioconference. Developing a feeling of "togetherness" using what Parker and Minson (1980) call a "humanizing" technique is important to any program that emphasizes group participation and exchange of information.

One method of involving knowledge users in the development of a conference is to solicit suggestions for the program. In Forum 5, staff asked for nominations of outstanding individuals in the area of business and education collaboration. After the nominations were made, panelists were contacted and asked to participate in the conference. They were given an outline of the program, objectives, discussion topics, and program times and dates that helped staff begin to plan for their participation.

One attempt was made to acquaint conference participants with the panelists by providing pictures and background information about the panelists and their exemplary programs. This technique helped the audience identify with the speaker, reduce uncertainty about the audioconference medium, and increase group interaction and involvement during the conference itself. A crucial planning step is to provide enough lead time for panelists to submit photos, program descriptions, and biographical information. The staff allowed for only

2 months, which was not enough time for the extensive follow-through required to get exactly what was needed.

Once the panelists had been identified and information requested from them, the next step was to secure site locations for the program. Once sites were confirmed, each location was responsible for selecting a facilitator. This person was responsible for coordinating the conference at his or her location and interacting with the project coordinator. The site facilitator was required to distribute publicity, take registration information, reserve a meeting room, set up equipment, and gather evaluation materials.

A conference agenda with panelists and program topics was developed and distributed to potential audience members. This information was essential in helping audience members make their program selections. Topics and conference content were clearly defined before panelists and audience members were contacted. Publicity releases were developed and sent out to associations and publications. Panelists received individual press releases that they sent to their local media.

The project director, moderators, and panelists participated in a preconference telephone call to discuss the conference format and the role they would play during the conference. This meeting provided a good opportunity for the speakers to practice audioconferencing. This activity, although crucial, became a coordination task of the highest order. Setting up the preconference calls involved coordinating the busy schedules of 58 individuals, all in different time zones.

The site facilitators received a guide to instruct them on the operation of the equipment and general site preparation at least 4-6 weeks in advance. Before the meeting, participants received a packet of materials that prepared them for the information to be discussed. The participant packet included the following: welcome letter, biographical sketch, photo agenda (to facilitate visual image of the speakers), selected background materials on the speakers, discussion questions, evaluation, and audience teleconference tips.

During the conference, participants were made aware of the rules for teleconferencing (e.g., speak clearly and directly into the microphone, identify yourself by name and location when you want to talk). The moderator was prepared with techniques to increase audience participation (e.g., repeat the question, and comments, use first names, commend audience on participants.)

Summary

This chapter summarized the knowledge utilization activities involved in using telecommunications to disseminate research findings. The KDU staff conducted the fourth and fifth forums in the Annual Policy Forum series. Departing from traditional conference methods, they utilized telecommunication methodology (i.e., videotape and audioconferencing).

Forum 4, "Education and Employment: Where We Are and Where We Ought to Go," synthesized the findings of the research program in a 60-minute videotape that was shown to over 3,000 persons in 50 states, Washington, D.C., and NewFoundland, Canada. After viewing the tape, the audience participated in an

audioconference during which they posed questions to the researchers featured in the tape.

Forum 5, "Collaboration in Education and Employment: What It Takes to Make It Work," was an audioconference in which panels of experts discussed a variety of issues involving collaborative activities to improve schools. The audience, which was comprised of approximately 1,800 practitioners, interacted with the panelists to exchange ideas and information on collaborative practices in education.

LESSONS LEARNED

> More is learned from the single success than from the multiple failures. A single success proves it can be done. Thereafter, it is necessary only to learn what made it work. To this we would add "and how it can most fruitfully be brought to the attention of potential users." (Glaser, Abelson, and Garrison 1983, p. 435).

The following is a synopsis of the insights gained in the knowledge development and utilization project. It is intended as a guide for others interested in a user-driven approach to communicating research successfully through: 1) existing channels in national associations, 2) inservice and classroom materials, and 3) telecommunication using videotapes and audioconferences.

Existing Channels in National Associations

Personalizing contacts, especially with gatekeepers, is the most instrumental strategy for gaining access to existing channels of communication. The points of entry for gaining access to associations will vary depending upon previously established contacts of your own organization and protocols within the associations themselves. Regardless of who your initial contact is, make sure you arrange for a personal visit to the association. It is important to have all the key decision makers at this session, including the association's chief executive officer. Progress is much swifter when you have support from "the top" from the very beginning. Larger associations require more time to personalize the process. In each association, one staff member will be assigned the role of facilitator or linker. It is this individual who ultimately provide the necessary linkage to your target audience.

Effective knowledge utilization results from a continuous process of collaboration. After the association has agreed to collaborate, you must maintain this support through continuous, but not bothersome, telephone contacts and written communication. Any gap in communication on your part will be regarded as a signal that you do not intend to follow through on your part the agreement. This can inevitably result in not accomplishing your goals. The association, on the other hand, may not, for very good reasons, do something you agreed upon. Do not wait! You must contact them immediately and offer assistance and support.

Associations will collaborate only to the extent they are convinced that the research is of high quality and that the information to be disseminated will be useful for their members. Credibility is the name of the game. Dumping a collection of research reports--however good they are--into the laps of the association's leadership is not the way to go. It can even jeopardize the entire relationship. Instead, the person representing the research must present (i.e., sell) a synthesis of the knowledge to the association. This requires a great deal of preparation to summarize the findings of research projects succinctly, to suggest how the findings might be utilized in the given organization, and to discuss intelligently how the membership will benefit from the information. This process works best when executed by someone other than the person who did the research.

Plan to draft the first copy of a journal article or information brief, rather than to expect the practitioner to draft it. Ideally, the user-driven approach requires practitioners to be the authors of articles and briefs. Although the project staff and the associations made a valiant attempt to do this, they were not successful. In every case, a member of the project staff had to prepare the first draft and, in most cases, had to take the article to completion. Through the writing of the various drafts, however, practitioners were more than willing to review copy and make suggestions for focusing the article directly on a problems existing in practice. Hence, the articles and briefs still retained significant user input in their development.

Reporting research in "plain English" increases utilization beyond the original target audience. One of the most successful knowledge utilization efforts originated with the American Association of School Administrators. They collaborated with the project staff to produce summaries of the research findings for each study in concisely written brochures. The writing style was very straightforward--much like that used in journalism. The content of the brochures was confined to the findings with minimal reference to research methods. This strategy was very successful in that other associations immediately adopted the brochures, affixing their own logos as collaborating organizations. Not only did thousands of practitioners in the field request reprints for themselves, but they also requested approximately one-quarter of a million for use with students, parents, and employers in their communities.

Transmitting research knowledge to policymakers is a slow and indirect process. Our initial attempts to involve policy-oriented associations in the user-driven process were not fruitful because of our own lack of understanding of how research information flows to policymakers. The most these associations were willing to do was to disseminate existing research summaries to their members. They could not develop policy suggestions. Instead, we worked with one policymaker, a state legislator, who helped design an information brochure summarizing the findings and suggesting how they might be used in educational policy. This strategy confirmed the conventional wisdom that research "trickles down" to policymakers who add the information to their knowledge pool for future reference when the evidence accumulates and the need arises.

Inservice and Classroom Utilization

School-based practitioners are eager to try out new materials, and access is relatively easy provided that administrative approval is obtained. Teachers and counselors seem to be ever alert to obtain new materials to improve educational practice. They are flattered to be involved in the development of these materials. Formal approval to try out the materials, however, requires the endorsement of administrators in the school system. To obtain this endorsement, project staff met with the educators who were to conduct the field trials, their department heads, curriculum coordinators for the school system, and building administrators (e.g., high school principals). Their approvals were contingent on the quality of the content of the materials, the ease of implementation, the amount of instructional time required, and the perceived benefits to students. Unlike the associations, school-based practitioners do focus on the quality of the research. Instead, they judge of the quality of the resulting information against the quality of their existing curriculum and instructional materials.

The employer database was the most compelling aspect of the school-based materials. For the most part, the educators were in agreement with the message contained in the materials. In fact, they said they already knew much of the content. However, they also said that their existing materials contained only conventional wisdom on employability development and was not research based. The employer data in KDU material added sophisticated knowledge by about employability development, set priorities for job search strategies more clearly, and lent authority tc the advice given to students.

The field-trial version of classroom materials should closely approximate the intended final version. In an attempt to keep costs down, the field trial version of materials was in draft form and lacked graphics. Consequently, most of the practitioners' suggestions for versions centered on how to improve the attractiveness of the materials. These suggestions could have been more meaningful if they were based on what the materials really would look. This was particularly true of the student materials. Someone facing the same situation would have to weigh the costs in terms of time and money against the possibility of producing better products.

Practitioners seem to be more interested in materials that they can get into the hands of students than in background material. The field test resulted in two interesting outcomes. All the classroom materials were well received. Recommendations to revise them involved expanding content and learning activities. Recommendations regarding inservice materials (i.e., background materials for administrators, teachers, and employers) involved reducing the amount of information and providing action guidelines. Therefore, the three background booklets were collapsed into one booklet to provide a brief overview of the research and instructional program and action steps that school staff and community resource people could follow to support the program.

Whether your own organization or a commercial publisher is responsible for publishing the products, be prepared to address a number of marketing and production concerns. Having school products that are based on good research and that reflect a high degree of involvement of potential users in their development will not assure their publication. Before anyone is willing to invest time and funds in publishing products, they want to be sure that the products are marketable. These marketing criteria are grounded in publisher's concepts of the competition, the final cost to consumers, and the size of the potential market. The KDU market survey revealed that the products were sufficiently unique to be salable and that they would capture a goodly portion of the market. The main issue was to produce materials at a reasonable cost and still maintain their products' integrity. This involved lengthy negotiations over matters such as length of printed matter, formats, graphics, packaging, and "catchy" titles. Fortunately, project staff had involved the National Center's marketing staff throughout the revision process. Nevertheless, the process took twice as long as anticipated.

Telecommunication

Producing a videotaped synthesis of the research is an effective way to get research findings into public use. The videotape, which was designed for a general audience, was a documentary presentation of the research findings by researchers, practitioners, and employers. The Forum 4 videotape was shown in

every state, Washington, DC, and Newfoundland, Canada, to over 3,000 persons. Each of the site facilitators had the option of keeping the tape for further dissemination within their state. All but 3 elected to keep it. KDU staff found that the videotape is being used extensively in workshops conducted by the state department of education in 3 states. In many other states, it is "traveling" from one local education agency (LEA) to another. KDU staff also received testimonials on behalf of the videotape in terms of its helping to gain support for a variety of educational activities involving employability development. For example, one site facilitator remarked that a board of education member who was not well acquainted with youth employment problems has become a staunch advocate of employability development programs in her LEA.

Videotape production requires a well-planned script agreed upon by the major decision makers in the contracting and sponsoring agencies. Videotape production costs can be very expensive. It is, therefore, important to finalize the script before the taping and editing are performed. Without such a script, you may produce a great deal of footage that never gets used. Although this might facilitate creative options in assembling the final product, it is a luxury that is not affordable on a tight budget. The script also needs to be finalized before the editing process to keep cost down. For example, professional narrators' fees are charged by the sitting--not by the number of lines or the amount of time. Unlike film, which can be spliced to make edits, a videotape must be reconstructed from the point at which the first edit is made. If this point is at the beginning of the tape, editing costs may double. Therefore, above all else, the script is the most manipulatable variable in controlling costs.

A videotape on research strains the attention span of its audience when it exceeds 30 minutes. Although our videotape was very well received, the most persistent criticism was that it ran too long (i,e., 56 minutes). Most people thought that the tape would have been better if it were half that length. To accommodate such a suggestion will be very difficult, however, if the producer is trying to communicate the findings of a 5-year research program. At the very least, though, the script should provide for a planned intermission after 20 or 30 minutes. After all, audiences are accustomed to the breaks--thanks to the television commercial breaks.

The audioconference is an extremely effective tool for communicating research findings to a broad audience of practitioners. The audience of Forums 4 and 5 alike--both audioconferences--were high in their praise of having the opportunity to interact with researchers and practitioners around the country on timely issues on education and employment. Many persons in the audience had never experienced this medium and most seldom have the chance to attend national conferences. Most viewers indicated that it gave them exposure to new information and ideas at a minimum cost of their time. Many of the audioconference sites also used the opportunity to launch a discussion of statewide issues. At least 15 state-level educators indicated that they intended to use audioconferencing to communicate policy and practitioner concerns within their states on an ongoing basis.

Audioconferences require a great deal of preconference planning for the host and the co-host site staffs. The logistics and arrangements for an audioconference must be thought out and executed well in advance of the conference

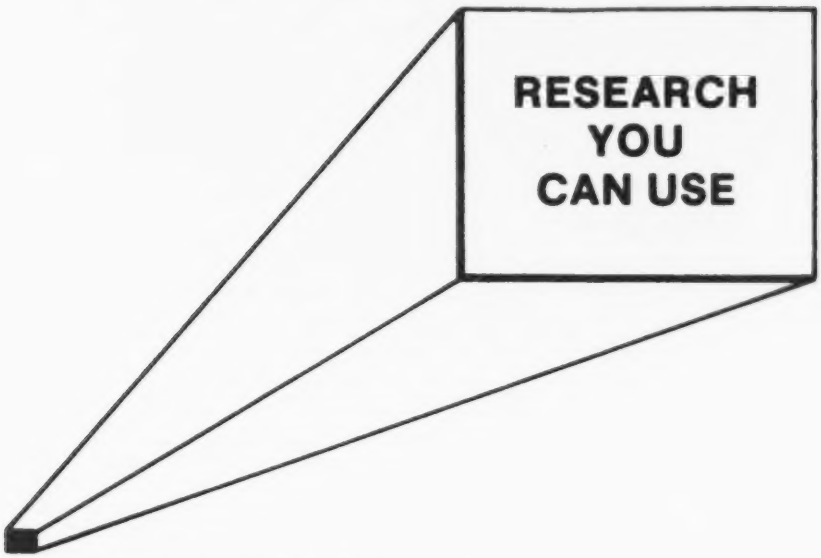
date. For example, an especially well received feature of KDU's audioconference was that we provided all participants with background information and "photo agendas" to make them better acquainted with the main speakers. To do this well requires that all the information and photos of speakers be in the hands of the conference director 3 months prior to the conference date to ensure that production deadlines are met. This means starting 5 months prior to the conference date to make your requests of those speakers and to allow for the many follow-up calls and letters that will be needed. At least this is true if you have 50 persons to contact.

Preconference trial run sessions with audioconference speakers are an absolute must. Many of the panelists were nervous about participating as a speaker in an audioconference. The preconference call minimizes these concerns and provides an excellent opportunity to rehearse the program. The major obstacle, however, is to arrange a time across 4 time zones when each panel of speakers can participate in the presession. To our credit (modesty notwithstanding), every one of the 50 persons the staff invited to serve on the audioconference panels accepted the invitation and participated in both the preconference call and the audioconference itself. There are few conference organizers who can make this claim. This was the result of staff's persistence, organization, and patience--not to mention the excellent cooperation of some very busy people!

Choose your audioconference vendor very carefully and conduct at least one trial run using the equipment and services. The number one complaint received on both audioconferences was that of technical problems, which included poor sound, getting cut off, and getting on line. At each conference the staff experienced these problems within the first 2 sessions. All the remaining 7 went smoothly. Why didn't KDU learn from the first audioconference? The staff changed vendors--a consequence of the required bidding process. Therefore, if you are doing this for the first time or with a new vendor, make sure you run a mock session the day before the real conference. You can avoid most of the technical problems this way, but not all of them. There is no way to avoid the occasional poor telephone connection, the site that gets defective equipment, the telephone operator who cuts you off accidentally, or the audience member who isn't close enough to the microphone. You must always be prepared for these problems and know how to handle them. They are not always avoidable but they can be handled well if you know what you are doing.

Last and most important, plan enough time for each of the steps of the knowledge development and utilization process. Then, double that time and cut out half of the steps. KDU cannot underemphasize the value of planning in working with the vast numbers of people required to carry out knowledge development and utilization activities effectively. Even good planning should never lull you into a sense that all will go smoothly. Somebody or something out there will remind you differently. But if you do your homework and stay on top of everything, you can achieve what you have set out to do--to most people's satisfaction and to some people's amazement.

APPENDIX A
ASSOCIATION'S INFORMATION BROCHURE



NEED SOME FACTS?

THE ADOLESCENT WORKER

- How do adolescents search for jobs?
- Who trains the adolescent worker?
- What work environments are conducive to youth's on-the-job survival?
- How and why do young workers leave their jobs?
- What are the implications for educators?

LOOK INSIDE . . .

THE NATIONAL CENTER
FOR RESEARCH IN VOCATIONAL EDUCATION
THE OHIO STATE UNIVERSITY
1960 KENNY ROAD · COLUMBUS, OHIO 43210

AMERICAN ASSOCIATION OF SCHOOL ADMINISTRATORS

The following findings are based on research that was conducted at the National Center for Research in Vocational Education, and sponsored by the National Institute of Education, U.S. Department of Education.

THE ADOLESCENT WORKER

The Adolescent Worker Study examines the world of work from youth's point-of-view. Twenty-five young people's experiences moving in and out of the labor force were documented over a 1-year time span. Distinct process patterns emerged in the school-to-work transition, they were—

- job search,
- job training,
- job survival,
- job turnover.

Studying these patterns provides an insight into the youth unemployment problem.

JOB SEARCH

The youth observed in this study used such job search methods as—

- networking,
- answering want ads,
- state employment agencies.

Networking, drawing on friends and family for information leading to employment, was productive for youth who were acquainted with people having contacts with decision makers in the job market. Networking was not a successful strategy, however, for youth from lower socioeconomic classes whose parents and friends were unemployed.

Answering want ads or going door-to-door met with marginal success. The chance of finding a job using this method increased when the job seeker persevered in following up on the ad response. For example, one youth, using the yellow pages, actually located a position as a teacher's aid.

Youth attempting to obtain job leads from state employment services met with no success. The adolescents were discouraged by the bureaucracy and time required to meet with counselors and complete forms.

Generally—

- Youth viewed getting a job as a matter of luck. Very few combined several job search strategies in an organized and systematic manner.
- Pay and job security were most important in seeking a job; little attention was given to planning a career path.
- Youth were more likely to rely on friends and relatives for information on job openings than on want ads, employment services, and other more formal means.

JOB TRAINING

Who Does the Training?

Trainers in the adolescent work site were—

- co-workers,
- supervisors,
- managers,
- training specialists,
- clients.

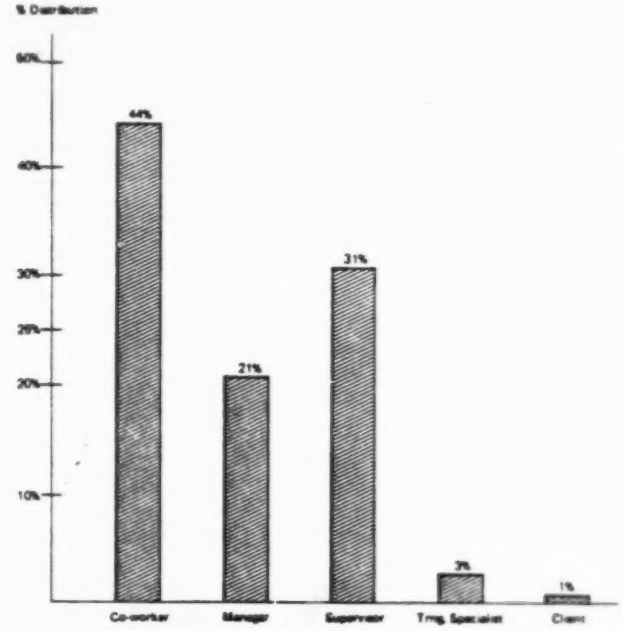


Figure 1. Trainers in the adolescent work site

Co-workers were the primary source of task-related instruction for young workers. Most of this training involved simple directions and demonstrations.

After a youth was hired, the manager or supervisor provided a brief orientation to the work site. If the job involved money, training was conducted by a supervisor. If the job entailed more menial tasks, a co-worker became the trainer.

Generally, training was sporadic and reflected the simplicity of tasks the adolescent was hired to complete. The work environment in work sites employing many adolescents occurred in a very nonsupportive setting.

How Long Does Training Last?

Seventy-six percent of the training incidents lasted 5 minutes or less. The company generally invested very little time and resources into the adolescent work force. Youth, in turn, demonstrated very little loyalty and responsibility toward employers, resulting in high job turnover.

Several participants in the study were employed at large firms that provided a supportive work environment. Job sites that provided training specialists were characterized by having—

- closely monitored training programs,
- clear job descriptions,
- higher starting wages,
- more formal evaluation processes with raises and promotions correlated closely to performance.

These companies generally employed youth for a longer time period, therefore offsetting the cost of additional training through increased productivity on the job. Youth employed at these job sites also reported more job satisfaction, which in turn increased their sense of responsibility and loyalty to the organization.

JOB SURVIVAL

A good match between the workers' skills and attitudes and the job setting is an essential component to surviving the job. Workers whose skills and attitudes are similar to the attitudes valued in the job environment are more likely to succeed. Youth obtaining jobs through friends and relatives benefit by having similar cultural values that contribute to fitting into the job.

Mentors

Having friends or relatives at the job site makes the new worker feel more comfortable due to the mentoring relationship that the established relative or friend develops with the new hire. The mentor teaches the young worker the formal and informal rules of ther workplace. This mentoring relationship benefits—

- the worker by reducing the chance of mistakes,
- the work establishment, by increasing productivity and decreasing job turnover.

In work environments nonconducive to mentoring relationships, the new hire assumes the burden of "fitting in." The successful worker receives credit for being "hardworking," "trainable," and "motivated." However, when the work experience is not positive and the new hire quits or is fired, the actions are attributed to undesirable characteristics in the worker rather than variables in the workplace. Assigning undesirable dispositional attributes to the worker protects the work environment at the worker's expense.

Attendance and Punctuality

Many conflicts arise between youth and their employers over attendance and punctuality issues. Many youth underestimated the importance employers place on attendance and promptness. At one work site, having more than 3 absences or 3 tardy incidents during the first 6 months was grounds for dismissal. At a restaurant work site, one absence resulted in dismissal. Many of the adolescent workers felt that employers were unreasonable in these expectations, forgetting that many adolescents have transportation problems or other competing demands on their time such as a second job or more personal matters involving family or friends.

JOB TURNOVER

The turnover rate of the adolescent work force is staggering. According to the Adolescent Worker Study, less than half of the 25 workers in the sample held their jobs longer than a year. Another survey showed the average job length for workers under age 25 to be 9.6 months.

Eight of the study's workers maintained their job positions throughout the study. Most of these jobs had potential for position advancement and paid more than minimum wage. In the other 17 examples, adolescent workers never quit one job to move to another that paid less. Though the pattern of quitting a job for the purpose of upward economic mobility is strong, adolescent workers did not realize the impact of leaving a job hastily, with proper employer considerations.

Young workers benefit by—

- maintaining strong, open communications with their supervisors,
- giving 2-weeks notice after making the decision to quit, and
- setting up an exit interview to get a clear understanding of their performance and final status.

Only one adolescent in the study gave proper notice and rationale for his decision to quit his job.

IMPLICATIONS FOR SCHOOLS

Youth need to learn how to navigate the job market. Educators can assist youth by implementing the following policies and practices:

- Teach youth how to organize and conduct a systematic job search.
- Implement a career exploration program so that youth can experience different types of jobs without a formal commitment.
- Make youth aware of the advantages of pursuing a career path.
- Encourage teachers to model a business environment in the classroom.
- Stress the importance of punctuality and attendance in the work world.
- Encourage counselors and teachers to develop mentoring relationships with students.
- Encourage teachers and students to learn through a cooperative team approach to provide opportunities for self and peer appraisals.
- Help youth understand the negative consequences of walking off the job for the entire youth population at large.
- Instruct students about the benefits of an exit interview.

Job changes among young adults can be understood by examining the experiences of youth inside workplaces. Misperceptions from the point of view of the employer on the one hand, and young workers on the other, impede young people's legitimate acceptance in the work force. More deliberate procedural attempts on the part of employers to create opportunities for young people, as well as development of employability education on the part of the schools, would likely alter the current prevailing image of youth as unstable and unmotivated employees.

This is a review of the research document entitled "The Adolescent Worker" written by Kathryn M. Borman, Margaretha Vreeburg Izzo, Elizabeth M. Penn, and Jane Reisman, and edited by Kathryn M. Borman. For further information on this project, please contact Margo Vreeburg Izzo of the Research Division of the National Center at 614-486-3655 or 800-848-4815 (toll free outside of Ohio).

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APPENDIX B

THE EMPLOYER'S CHOICE
(Multi-Media Package)

The Employer's Choice package addresses the issue of what works in the employment arena, both for the student and for the employer. The products included in the package are based on research on employer hiring practices and on the early labor market experiences of young workers. The products utilize the findings of that research, relating employability skill development to the realities of the employment situation.

The Employer's Choice package is intended for school principals, teachers, guidance counselors, employers, and students--all of whom must work together to prepare youth for employment. Employability development is everyone's job, and the products in this package are intended to make that job easier.

Following is a listing of The Employer's Choice products and a description of the purpose and use of each.

Classroom Materials

What Are Employers' Priorities

This product includes a student guide and an instructor's guide. The information presented in these guides is based on a survey of over 500 employers from across the country who were asked how they would be influenced to hire (or retain) a given applicant.

This activity in What Are Employers' Priorities? direct students to (1) complete the same questionnaire that employers completed, (2) compare their responses with employer responses to determine their understanding of employer hiring standards, and (3) identify what they will do to meet employers' standards and thus improve their employability.

The product is intended for high school students who are or will soon be looking for jobs--whether those jobs are part-time or full-time. By using it, students will gain insight into where they should focus their efforts, both in school and during the job search, to be most employable. They will learn not only how employers react to positive (and negative) information about job applicants, but also the degree to which the employers are influenced to hire or fire employers.

What Works in the Job Search?

This product consists of an instructor's guide and a videotape of job applicants being interviewed. The information presented in the guide is based on a study of employer hiring decisions. It identifies the characteristics employers consider most often when they assess entry-level job applicants and the relative weight each characteristic has in their final hiring decisions.

The lessons help students develop skills to impress employers through the job application and interview. They detail what employers want and what job seekers can do to prepare for the job search.

The videotape presents a series of simulated interviews in which applicants demonstrate various behaviors. Students watch the videotape and then assess each applicant's behavior and probability of being hired. Finally, students compare their assessments with employers' assessments of the applicants.

What Works on the Job?

This product consists of 4 student booklets and an instructor's guide. The booklets are based on a study of the early labor market experiences of young workers. Each booklet presents the case study of a number of workers, followed by questions that lead students to analyze the case, a focus section in which a central point of the case is discussed, and an activity section in which methods for acquiring the necessary skills are detailed.

The titles of the four student booklets are as follows:

- o "Getting a Job"
- o "Becoming an Insider"
- o "Learning at the Work Site"
- o "Leaving a Job"

Inservice Materials

Your Role in Youth Employment

This introductory booklet describes the problem of youth unemployment and identifies some of the causes of the problem. It offers recommendations for how school principals and other administrators can encourage and initiate employability skill development in the schools. The recommendations presented are based on research form the Youth Employability Research Program, conducted by the National Center for Research in Vocational Education and sponsored by the National Institute of Education. The chapters of this booklet, which appears on the following pages, are titled as follows:

- o "Promoting Employability Development: Recommendations for School Administrators"
- o "Helping Students Get Jobs: Recommendations for Teachers and Guidance Counselors
- o "Selecting the Right Person for the Job: Recommendations for Employers"

In-School Preparation for Employment

This publication presents a synthesis of research conducted by the Research Division of the National Center for Research in Vocational Education. It documents the effect of basic skills on eventual earnings and on actual

productivity on the job. It indicates the mix of academic and vocational course work and job experience while in high school that will maximize success in the work world after high school. Best methods are described for finding good jobs and selecting good employees. Finally, students, teachers, and employers receive practical advice about how to improve the match of student skills and preferences to particular jobs.

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